

A landscape photograph showing a wide, grassy field in the foreground with scattered low-lying shrubs and small orange flowers. In the background, there are rolling hills and mountains covered in dense, dark vegetation under a blue sky with light clouds.

# **Increasing Availability of Native Winners for Restoration on the Colorado Plateau: *Notes from the Field.***

**Cara Gildar,  
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# Staying on the cutting edge of Native Plant Materials





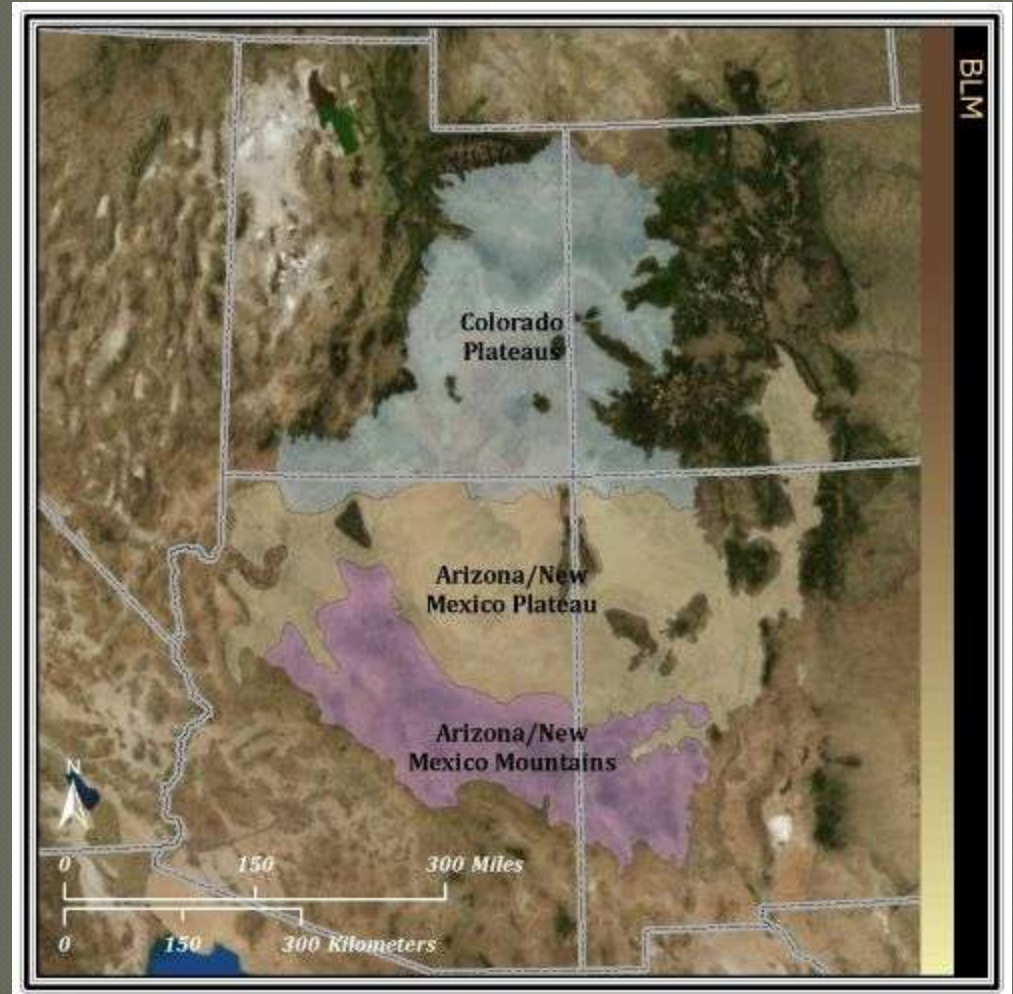


# Outline

- ① **Geography and characteristics of the CO Plateau.**
- ② **Wildland collection strategies.**
- ③ **Grow-out strategies.**
- ④ **Funding and Partnership strategies.**
- ⑤ **Questions and comments.**

# Colorado Plateau Geographic Extent

- Three EPA Level III Ecoregions.
- Connectivity of ecoregions by the pinyon-juniper ecosystem.
- Sensible working area for native plant materials development.



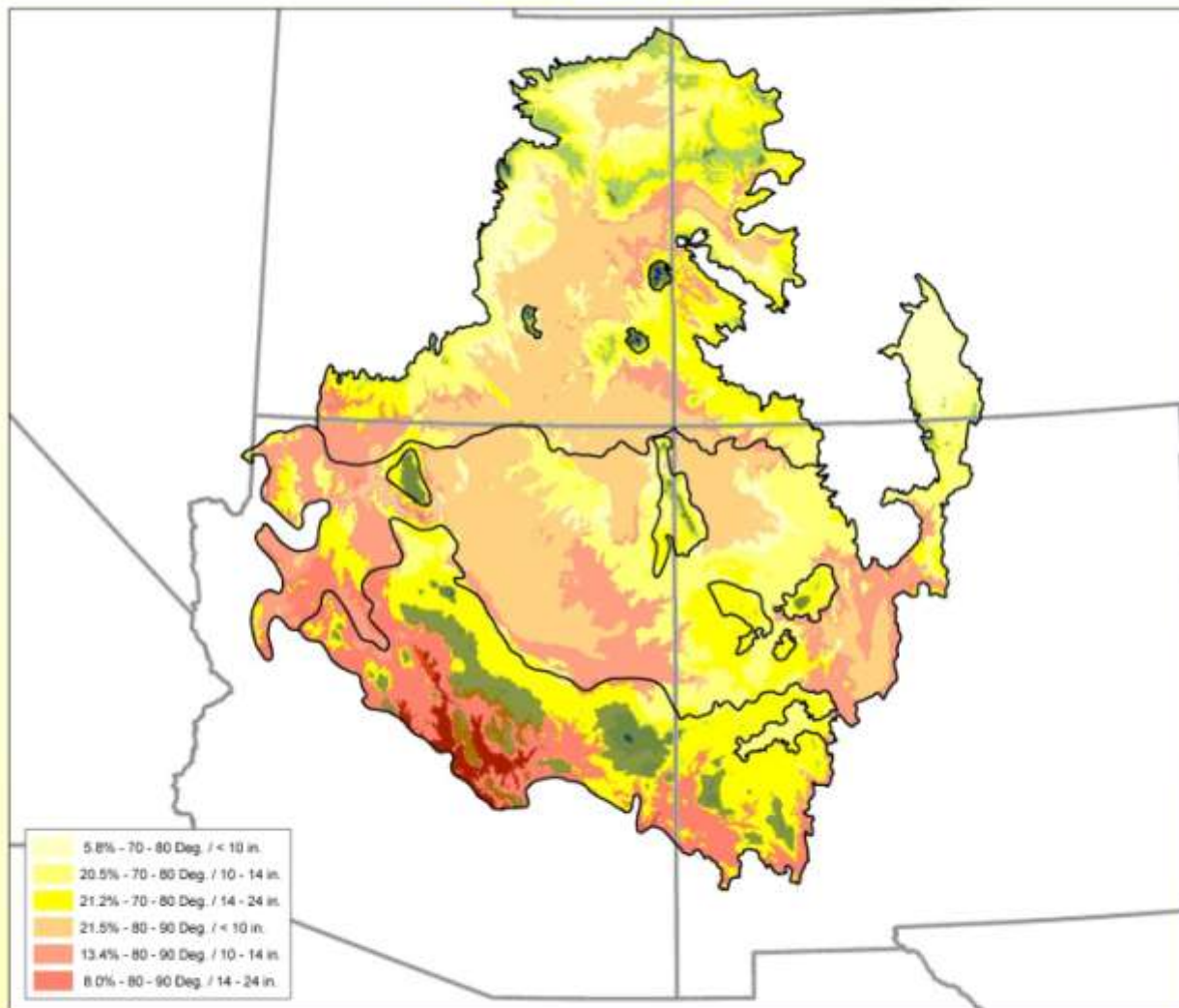


# Colorado Plateau Disturbance Types

- Livestock grazing
- Oil and Gas exploration and development
- Catastrophic wildfire
- Unmanaged OHV use



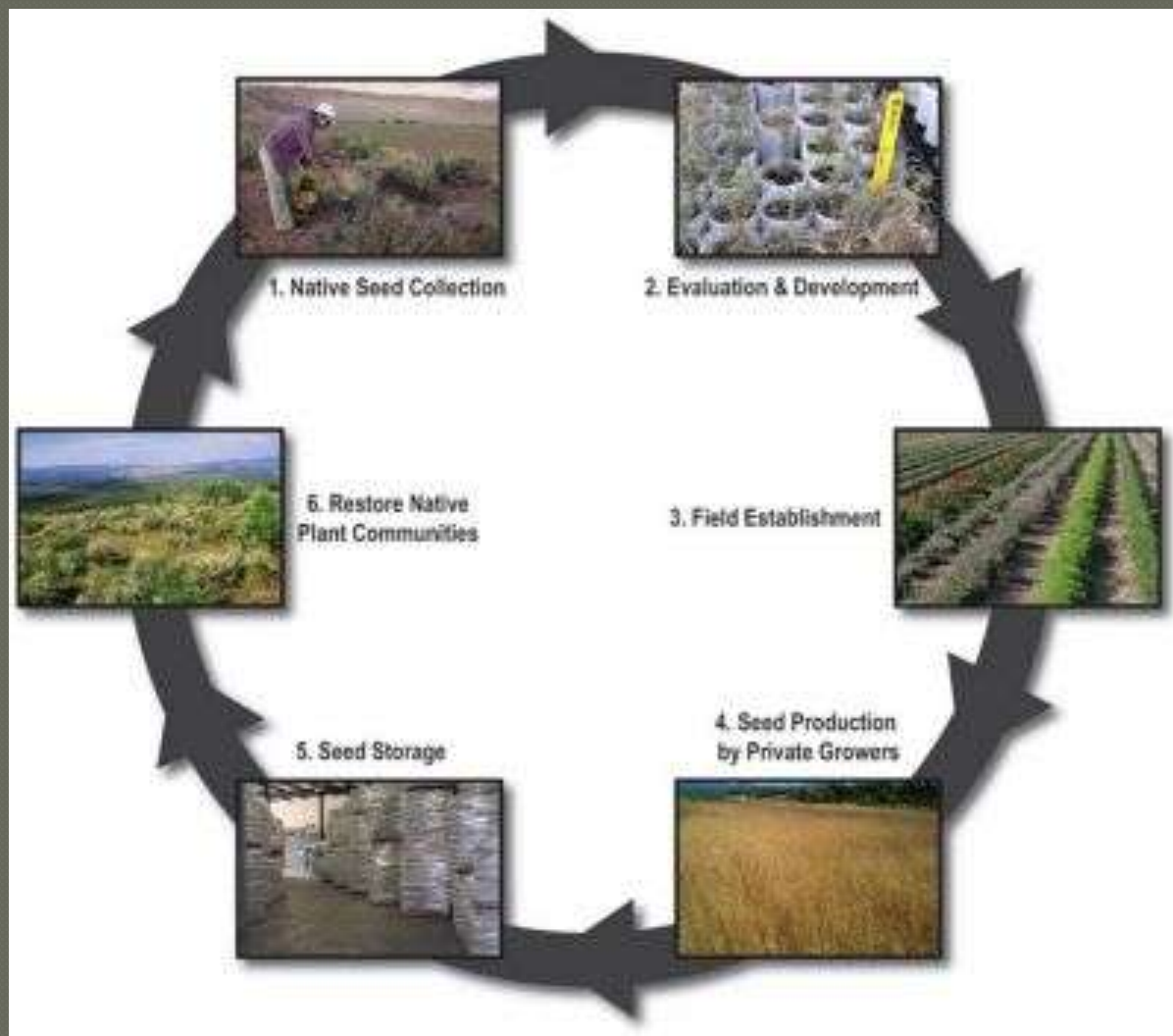
## Provisional Seed Transfer Zones Grasses & Forbs



Source: Andy Bower, Brad St. Clair, Vicky Erickson  
USFS Pacific Northwest Region, USFS PNW Research Station

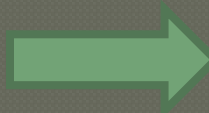
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# National Native Plant Materials Development Program Protocol





# Getting from here to there.



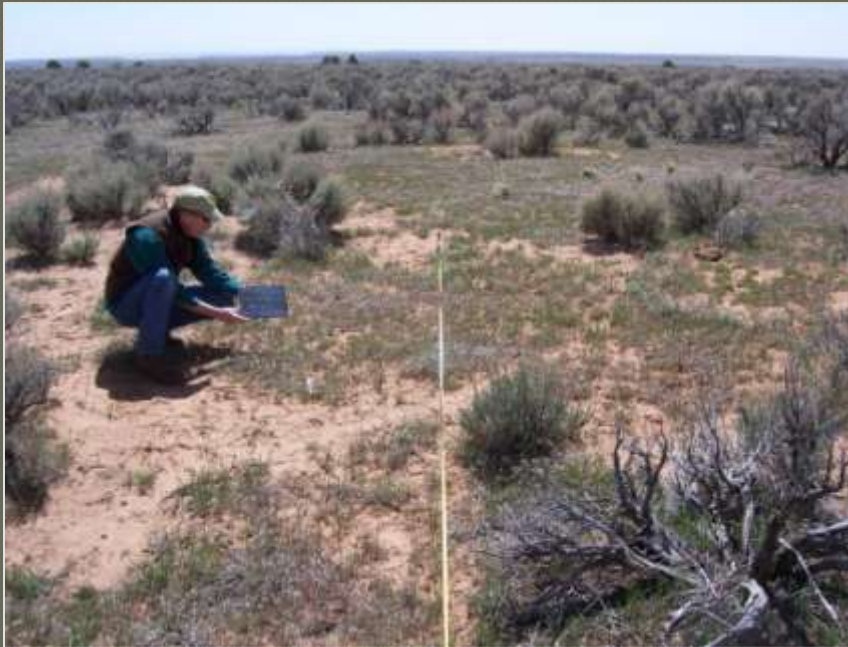


# Wildland Collection Strategies



# Planning for Collection

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- Focus on early- and mid-seral species, grouse habitat species, and areas vulnerable to climate change.
- Study long-term trend data to find locations.
- Track phenology.
- Collect in areas with and without invasive species.
- BE OPPORTUNISTIC!!!



# Understand the Field Crew Experience

You want  
me to  
collect  
*WHAT???*



This is the  
best!



What is  
this???



This is the  
worst!



*“Maintain an opportunistic mindset. One of the lessons learned over the last four years is that whatever goal(s) are set, Mother Nature may have other plans for you. Adaptability is crucial; the seed collections made in 2012 were possible only because new environments were sought and utilized. We are indeed fortunate to have a wide range of habitat—from desert to alpine—present on this district which, in turn, allows us to be the opportunists.”*



# ASK LOTS OF QUESTIONS

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- ◉ How much material was there?
- ◉ How did you collect it?
- ◉ Is it determinate or indeterminate flowering?
- ◉ Did you see any other candidate collection species while you were collecting?

# GROW OUT STRATEGIES






# Understand the Grower's World



You want me to  
grow *WHAT*???



Hmm . . . Is this  
a good yield or  
a bad yield?

# Growing native plants is hard work!!!!

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# Think outside the box during research and development

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- Experiment with different planting depths, widths, spacing, etc.
- Don't expect harvest the first growing season.
- Try wacky methods, they just might work.

# ASK LOTS OF QUESTIONS

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- ◉ How was the plot irrigated?
- ◉ Was it difficult to harvest?
- ◉ Did it spread like a weed (that could be bad or good)?
- ◉ Were herbicides applied?



# FUNDING AND PARTNERSHIP STRATEGIES



# Establish Common Ground with Partners

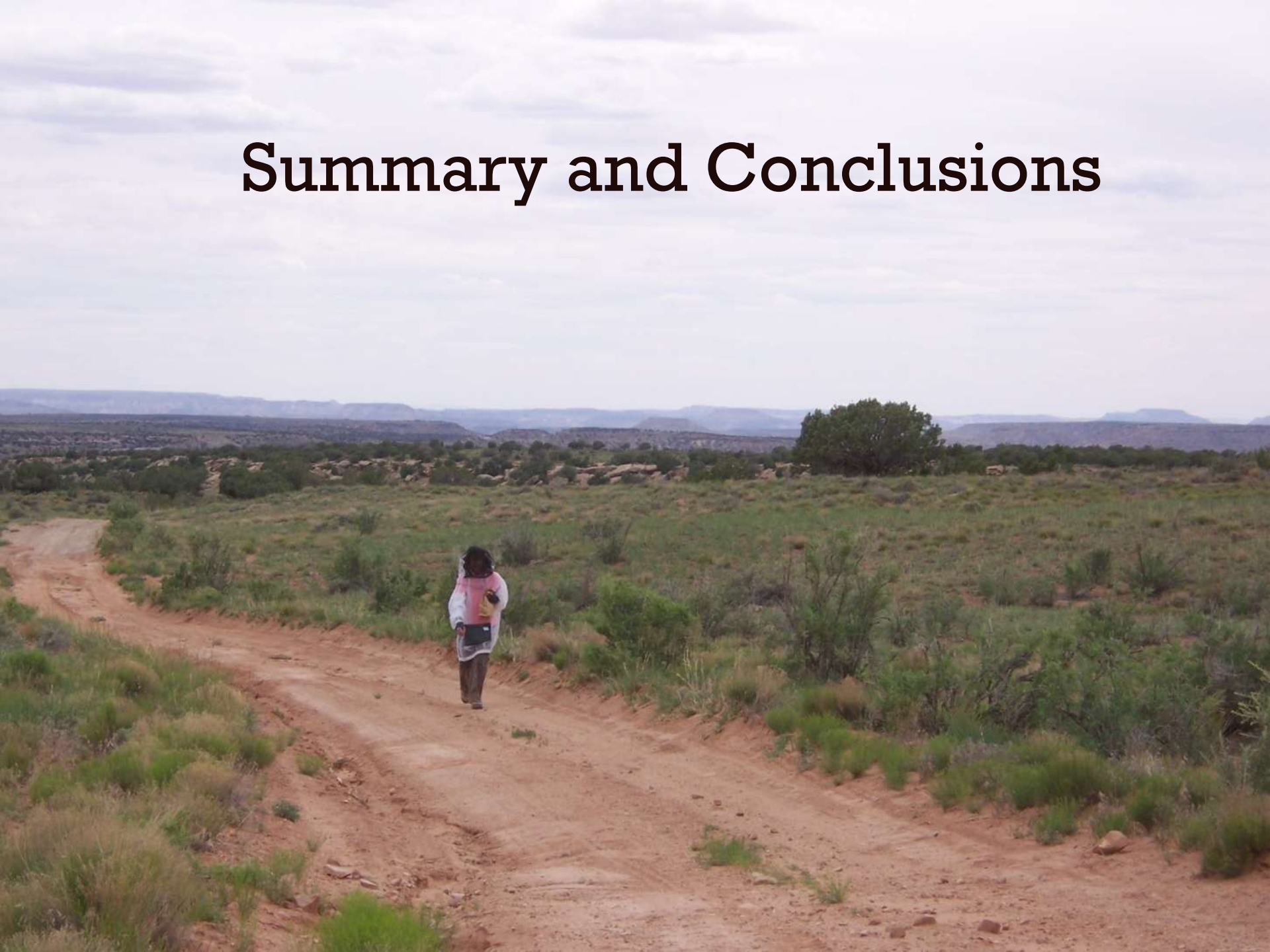
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- Wildlife habitat improvement.
- Economic stimulus to local community.
- Restoration of degraded lands.
- Successful reclamation equals earlier bond release and good press for operators.

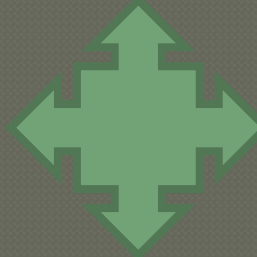


# Summary and Conclusions



**Communication among growers, sellers, researchers, management and operators is critical to success.**

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# Contact Information

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